

ACKNOWLEDGEMENTS

Although the thesis bears on its cover, only the author's name, none of this work would have been even possible to accomplish without the hefty support of quite a large number of people. I am truly and deeply indebted to so many, that I fear that I may unintentionally omit someone's name. If that was the case, please accept my sincere apologies. I sincerely hope that anyone who in anyway contributed and helped me get so far, will share with me this particular moment of satisfaction and happiness which I am now enjoying.

First of all, I wish to name **Prof. Dr. M^a Teresa Dinis**, and say how greatly indebted I am to her, not only for being my main promoter, but also for all her patient and tireless guidance during the whole process, an without whose motivation and encouragement I would have not even considered the opportunity to pursue my MSc's practical work along with one of the ARC research teams. Although I feel that I will never be able to express my full appreciation for what she has done for me, I wish to convey to her my eternal gratitude.

I also would like to express my deep appreciation to **Prof. Dr. ir. Peter Bossier**, for supporting and offering me such an opportunity to pursue my practical work at the ARC, and from whose advice and guidance I benefited so much. His expertise, understanding, and patience added considerably to my undergraduate scientific experience.

Acknowledgement is also due to the role played by **Kristof Dierckens**, to whom I am forever grateful, for all his valuable advice, constant supervision in all laboratory work and for the insightful of his comments on the preparation of the draft reports. His manner and originality of approaching the problems with which I was often confronted, triggered my intellectual maturity, something that I will benefit from, for all time to come. "When we are challenged, testing can produce strength of character, faith and a gratitude that surpasses all under-standing" (by Jewel Diamond Taylor).

Special thanks are also extended to the ARC elements, both secretarial and technician, namely **Alex Pieters**, **Magda Vanhooren**, **Marc Verschraeghen**, **Anita De Haese**, **Tom Baelemans**, **Christ Mahieu**, **Geert Vandewiele**, **Bart Van Delsen**, **Mathieu Wille**, **Brigitte Van Moffaert**, **Jorg De Smeyter** for all their help, advice and information. To **Jorg De Smeyter** and **Brigitte Van Moffaert**, I owe a special word of thanks for "being always there", and for their priceless assistance and support on solving everlasting issues.

I wish to express my appreciation to **Prof. Dr. Wim Van den Broeck**, head of the Morphology Department of the Faculty of Veterinary Medicine – Gent University, for his most valuable help, by allowing me to work at the laboratory facilities. My sincere thanks also to the technical staff of the laboratory, namely **Lobke De Bels** and **Bart De Pauw**, for their priceless assistance.

I'm also grateful to **Annamaria Rekecki**, for all her efforts and the feedback that she provided, while reviewing my report thesis. I really don't know how to express my gratitude!

Thanks also to those who provided me with statistical advice at times when it was most needed, namely **Prof. Dr. Viviane Fonseca** and **Prof. Dr. Margarida Castro**.

I would like to acknowledge my PhD and MSc fellowship from “Ghent’s life”, who in many occasions, expressed their concern and support: Nguyen Ti Ngoc Tinh, Le Hong Phuoc, Yeong Yik “Sunny”, Jana Ryckaert, Nguyen Thi Xuan Hong, Pattada Iyanna Aiyappa, Truon Quoc Thai, César Bonilla, Vu Hong Nhu Yen and Warima Charles Gatune, Joseph Laranja, Angeli Cabaltica, Carlos and specially **Tatiana Poletto**, **Lenka Kvasnièková**, **Lotte Van Den Dries**, **Leticia Méndez** and **Jairo Docobo** with whom I shared various pleasant moments.

I spent many formative years at Algarve’s University, and gained so much from so many. I would like to take this opportunity and thank all **academic Professors** and **BMP colleague friends**, not only for bestowing their friendship on me, but also for their support and interest in my studies.

Life away from home can be very hard...Fortunately most of the hardships were overcome, by a very affective, friendly and supportive atmosphere surrounding me...**I extend my deepest gratitude to you all!**

I also owe a special word of gratitude to **Artur** and **Isabel Gomes** for always “being there” as an unwavering support. Since the very beginning they were never too busy to provide a warmth encouragement to carry on.

Very special thanks are due to my long-suffering sis, for the advice, encouragement and support provided during the critical times of last year. **Carina Caldeira**, few lines are too short to show my deep appreciation for everything you and your family have done for me. Thank you so much!

C. Caldeira and **Joana Pereira** also known as “**Ratinha & Coelhoita**”, have both been devoted friends and a great support during all this process. Not forgetting our little chihuahua, **Luna**, for her unwavering loyalty during all the long hours she patiently laid by our side.

The successful completion of this major project has in no small measure been due to the outstanding efforts and commitment from **Manuel Soares Pereira**, who has unflinchingly and consistently helped me, over such a hard time of his life. Throughout this period, I’ve benefited enormously from the valuable contributions and helpful advice given by.

Pappy MOMMY
 Lalalalala... *Avó Maria* *Luna* Poney
 TIO LEVI *Avó Tito* Fluppy *Pescadinha*
 Carina **Runty Carmen & Uncle Kosta**
 Renos *Coelhoita* *Stamatia* *Avó Dulce*
 Diogo *Angela* *Vurla* **Mahaut** *DIMITRIS*
 Cathy *Jô* *Coito* *D.Isabel* *Gambelas* Leicy
 David **Prima Fátima** **BMP** **NUBYA**
 Inês *GHENT* *Eti* **BALEX'S** *Angela*
 Isabel e Artur *PGem* *Ana Sofia* *Sónia*
 Marina *Sr.Lima*
Gi *Santinho* *AG* **Jairo e Helena** *UALG*
 Brian & Ester *Sweetie* *Ana* *D.Lina e Zé* *Nala* *Pipa*
 Isabel *Mizé* **Mariana Avelar** *Netinha* *Joana*
 Mochina *Patch* *A.SOFIA* **Andreia e Francisco**
 Samuel *Açoreana* *Paula+Marta+Shikha* *ARIEL*
 João *Cibelle* *Troglodita* *Joana Barata*
 SR.DAVIM *Natácha* *ARC* *Panthy* *Alex*
 Lelito e Lenita *Lili* **ISABEL RUSSA** *EPM* *Mima*
Shilke *Bruno Avô* *Cátia* *LUNA?*
 CYRNE *RUI* *Pepsy* *Vina* *Gotam* *Jardim* *ALLIN*

Many thanks go in particular to **Ester** and **Brian Lee**. I am grateful to mommy's cousin, for using her precious time to revise some chapters of this thesis, 謝謝您 .

I know how proud you are from me, and let me just say that I'm equally prouder of having such great "Ferreira" relatives, and above all very good friends.

I'm most grateful to "aunty" **Carmen** and "uncle" **Kosta Kourantas**, for their indubitable love and concern throughout these years.

Particular thanks are extended to African lands...To my beloved Africa, and particularly Mozambique, land where I was born and where I grew up, and to all my **family clan living there**, who in many occasions have shown an outstanding caring commitment...

Finally and foremost, I am forever indebted to **my family** for the unconditional support they have provided throughout my entire life. Their encouragement, guidance, love, patience, confidence, caring word of advice and continuous support, were critically important for my success.

Especially, Granny M^a Soledade, Mom and Dad for always being there for me, in spite of the distance!

Vó Maria...obrigado por ter procurado estar sempre presente! Apesar das nossas divergências, quero que saiba que a amo imenso e jamais esquecerei tudo o que fez por esta "Xica da Silva".

I owe to my parents, **Carlos** and **Suzana Silva**, everything that made me the person that I am today!

The following lines are dedicated to my Mommy and Pappy,

Mwine, mi nga ni nhica a vutomi ni ti dondro a ku va ni pswi hanya hi ntsima ntsima, a pswi fanelanga ntsena a ku khensa.

Mwine, mi nga vaningaa tindlela ta k uva ti mphmile, hi li randro ni hi ntsima ntsima a k uva ni nga tali hi ku tchava kamba na ni ni ku rindrele, a pswi fanelanga ntsena ku khensa.

Ku mwine, va tatana hi xi hena ni li randro a pswi nga fanelanga ku lhaia pswako, a ni na marhito ya ku tlanguela kinkwapsho lepswi me nga yentchela mine.

Ntsena hi pipswi yentchekaka, loku ni djuletela hi stsima ntsima a ma vonela ya ku komba a ku nyoxa ka ku kala ku nga heli.

Kumwe ku nyoxa ka ku kala ku ngue te lhaiua hi ma ritu.

Na mui randra ngopfu!